Original document

0-003

DE19920161

Patent number: DE19920161
Publication date: 2000-05-25
Inventor: THIES ANDREAS (DE); CRAEMER KONRAD (DE); MEYER HEINRICH (DE)
Applicant: ATOTECH DEUTSCHLAND GMBH (DE)
Classification:
- international: ***B01F5/06; B01F13/00; B01J19/00; B32B38/10;*** *B81B1/00; G03F7/00;* **B01F5/06; B01F13/00; B01J19/00; B32B38/10;** B81B1/00; G03F7/00; (IPC1-7): G03F7/00; B01J19/00; B29C63/02
- european:
Application number: DE19991020161 19990428
Priority number(s): DE19991020161 19990428; DE19981052523 19981106

Also published as:
WO0028381 (A

View INPADOC patent family

Abstract of **DE19920161**

The invention relates to method for producing microcomponents with flow channels in at least one plane, especially of chemical microreactors, heat exchangers, mixers and evaporators. The inventive method comprises the following steps: A. producing a first metal layer or metal film (1); B. coating at least one surface of the first metal layer or metal film (1) with a structured resist layer (3), whereby the first metal layer or metal film (1) has bare spots (6) which do not correspond to the channels to be produced; C. depositing a second metal layer (7) onto the bare spots (6) of the first metal layer or meta film (1); wherein the sequence of steps A to C is carried out several times to produce several planes and/or the sequence of steps A to C is followed by step A to produce a closing segment for the flow channels; and D. removing the resist layer (3) once the planes have been produced. The resist layer (3) can be a serigraphical coating layer, a photosensitive layer or a perforated film.

Description of **DE19920161**

Die Erfindung betrifft ein Verfahren zum Herstellen von Mikrobauteilen mit Strömungskanälen in mindestens einer Ebene, insbesondere chemische Mikroreaktoren, die in der chemischen Industrie unter anderem für Synthesereaktionen und auf anderen Gebieten, beispielsweise als Wasserstoffquellen zur Energieumwandlung (Brennstoffzellen), eingesetzt werden können, sowie von Wärmeaustauschern, Mischern und Verdampfern.